



User Manual

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Congratulations on your decision to purchase the Kuvia Kayaksailor, and welcome to the enthusiastic family of Kayaksailor owners.

Your new Kayaksailor represents the very latest development in sailing rigs for paddle craft.

Here at Kuvia, we love to test and have fun with the sailing rigs we create. From this hands on experience comes a unique understanding of how to maximize the performance of our products. We would like to share this knowledge with you.

Even if you are an experienced sailor, we suggest that you read this manual thoroughly before using the Kayaksailor for the first time. You will find the instructions clear and easy to follow, and a few minutes' study will assure your success from the start.



If you are unfamiliar with kayaking or re-entering a kayak from the water, seek professional instruction on proper re-entry techniques.

If you are new to sailing or kayaking, please be advised that this manual is not intended to teach you how to sail or kayak. We recommend contacting your local kayak shop, college, yacht club, sailing club, or coast guard auxiliary for instruction on kayaking, sailing, and marine safety.

Take your time studying this manual, and have fun.

We'll see you out on the water.

Kuvia LLC.

RELEASES AND AGREEMENTS

BY ASSEMBLING AND /OR USING THIS PRODUCT, YOU ARE AGREEING TO:

1) be bound to the terms set forth below; and 2) require anyone using this product to be bound by such terms. If you are unwilling to be bound by these terms, return this product (before use) for a full refund.

RELEASE OF LIABILITY, CLAIM WAIVER AND ASSUMPTION OF RISK AGREEMENT

RELEASE AND WAIVER OF CLAIMS AGREEMENT:

In consideration of your use of this product, you hereby agree to the following, to the fullest extent permitted by law:

To waive any and all claims that you have or may in the future have against Kuvia LLC or any of its agents, resulting from use of this product and any of its components. To release Kuvia LLC or any of its agents from any and all liability for any loss, damage, injury or expense that you or any users of this product may suffer, or that your next of kin may suffer, as a result of the use of this product, due to any cause whatsoever, including negligence or breach of contract on the part of Kuvia LLC or any of its agents, in the design or manufacture of this product.

BINDING EFFECT OF AGREEMENT:

In the event of your death or incapacity, this Agreement shall be effective and binding upon your heirs, next of kin, executors, administrators, assigns and representatives.

ENTIRE AGREEMENT:

In entering into this Agreement, you are not relying upon any oral or written representations other than what is set forth in this Agreement.

ASSUMPTION OF RISK:

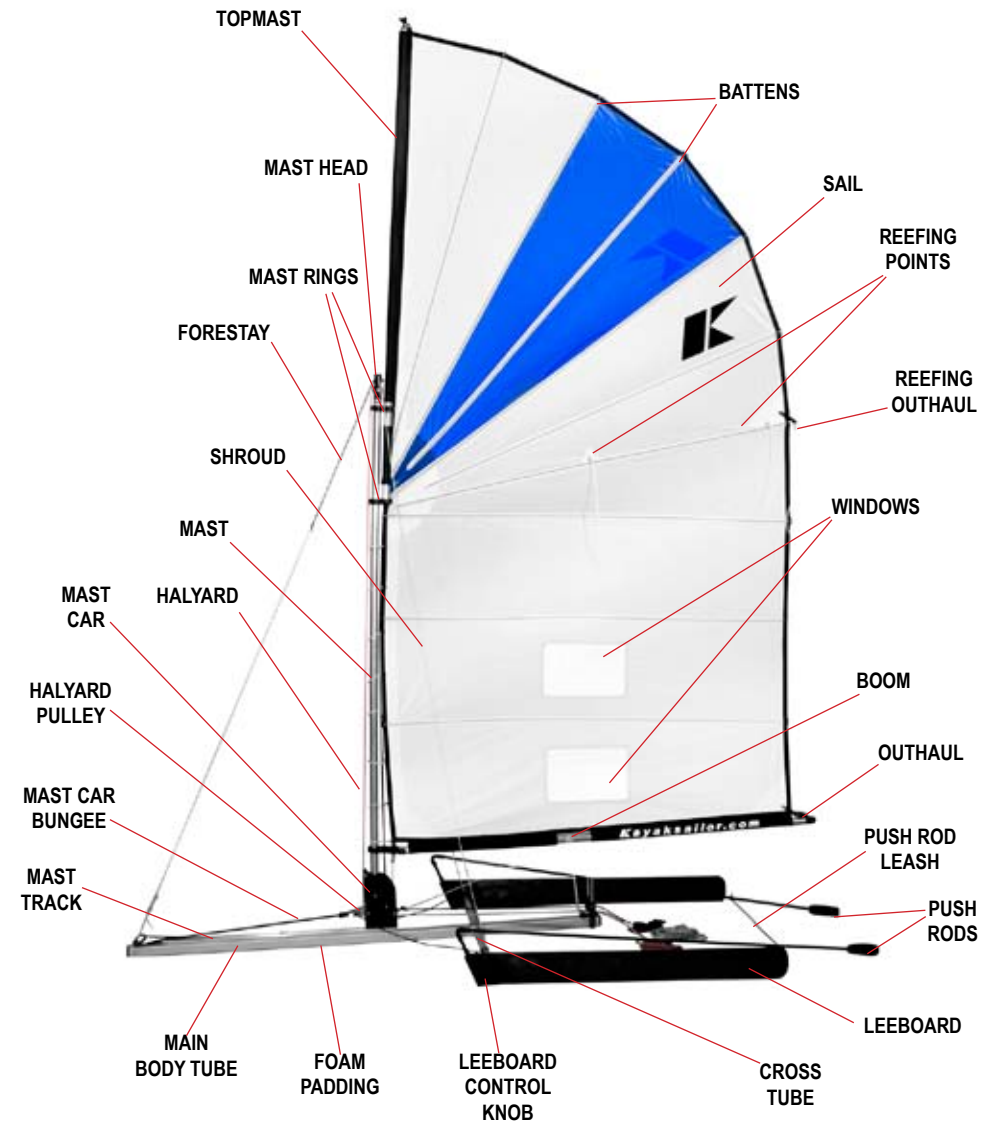
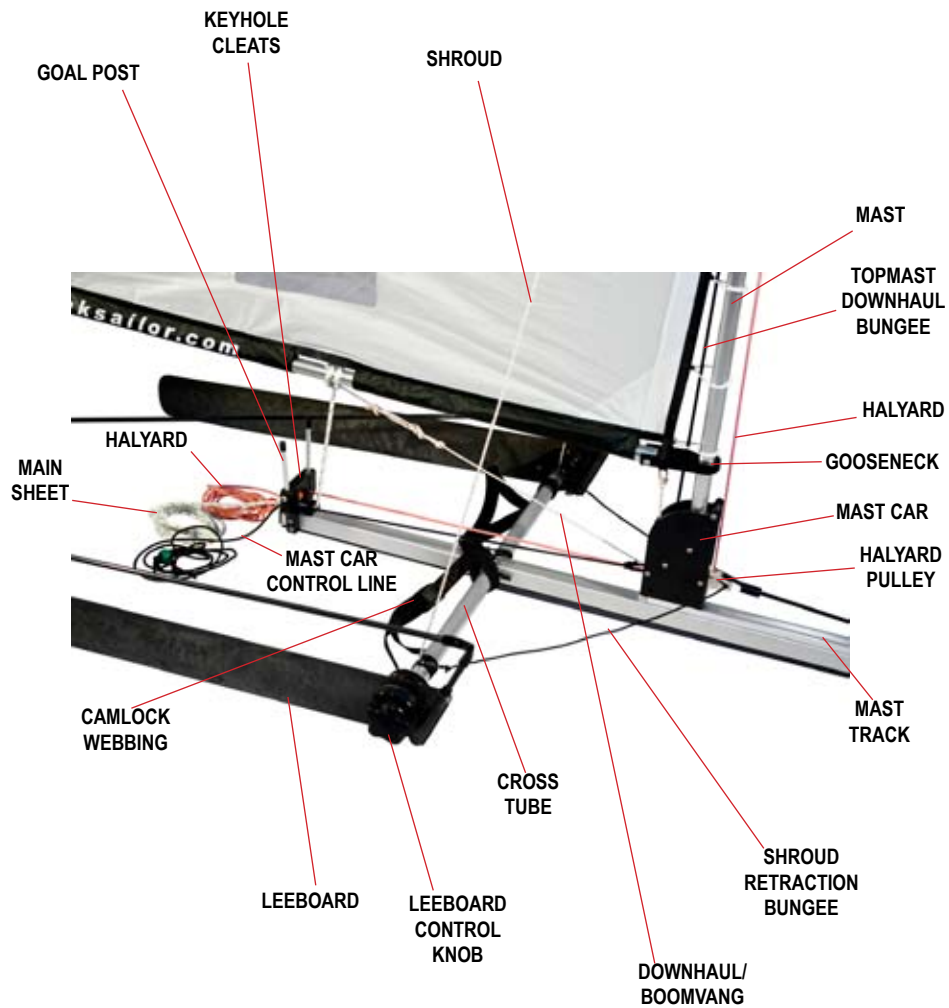
Use of this product and any of its components involves certain inherent risks, dangers and hazards, which can result in serious personal injury or death. In using this product you freely agree to assume and accept any and all known and unknown risks of injury while using this equipment. The risks inherent in the sport can be greatly reduced by abiding by the Warnings and Safety Precautions listed in this User's Guide and by using common sense.



WARNINGS & SAFETY PRECAUTIONS

- Kayaksailing can be dangerous.
- Do not use this product if you are under the influence of alcohol, drugs or medications.
- Always wear a nationally approved personal flotation device.
- Understand your physical and skill limitations.
- Dress appropriately for the water temperature. Prolonged exposure to cold water will result in hypothermia.
- The use of this product exposes the user to many unavoidable and unexpected risks, dangers and hazards.
- Always use extreme caution when using this product.
- Practice raising and lowering the sail and self rescue techniques before using this product on the water.
- Never allow anyone else to get close to the rig when raising and lowering the sail. The sliding mast car and movement of the spars can cause injury.
- When you capsize, stay with your boat. This can not be emphasized enough. Being separated from your boat can be fatal.
- Only use this product if you are in good physical health; be honest with yourself.
- Never use this product on the water unless you know how to swim.
- Never act in a careless manner when using this product.
- Misuse of this product can cause serious injury or death.
- You are responsible for your own safety, and the safety of others around you when using this product.
- Never allow anyone who is not familiar with kayaksailing to use this product without experienced assistance.
- If you are under 18, you should have your parents or legal guardian read these warnings and instructions. You should not use this product unless you are under proper guidance and supervision.
- The Kayaksailor should not be used in breaking waves, strong currents or extreme conditions.
- Check your equipment prior to each use for signs of wear or failure.
- Never use this product with worn lines.
- Always observe local rules and regulations when using this product.
- Never learn to use this product in more than 10 knots of wind.
- Never use this product in high winds.
- Never use this product in thunderstorm and lightning conditions.
- Only use this product when you are in a sitting position.
- Never use this product in wind conditions that are above your ability level.
- Never use this product near or on the water in offshore wind conditions unless you are an expert paddler.
- Only use this product when you have clear space downwind, and on both sides of your craft.
- Do not sail your craft around swimmers.
- Never use this product on crowded waterways.
- Choose a location free of breaking waves, strong currents, or extreme conditions.
- Avoid boating alone.
- Rinse your Mast Track with fresh water and lubricate after every session. An adequately lubricated mast track will help the rig fold quickly in an emergency situation.

DIAGRAMS



LIST OF PARTS

- A) 1 Sail Rig Main Body with Sail Cover
- B) 2 Leeboard Assemblies
- C) 1 Aluminum Cross Tube with Clevis Pin and Split Ring
- D) 2 Fiberglass Push Rods
- E) 2 Shroud Rings with Thumb Screws
- F) 1 Mounting Kit : Includes 4 Stainless Steel Eye Straps, 9 SS Machine Screws, 9 SS Washers, 9 SS Lock Nuts, 9 Aluminum Tri-Grip Blind Rivets
- G) 1 Webbing Kit: Includes 2 CamLock Buckle Straps, 2 Loop Webbing Straps, 1 Long (Under-the-Hull) Loop Webbing Strap
- H) 1 Carry Bag

ASSEMBLY

Out of the Box: Remove all items from box and lay them out on a clean flat area.



Remove split ring and clevis pin from the center of the cross tube.

Slide the cross tube halfway into the main body tube until the holes align.



Insert the clevis pin from below



Secure with the split ring.



Slide one Camlock webbing strap onto one side of the cross tube. Slide the **longest** webbing strap onto the other side of the cross tube. The remaining straps will be used at a later time with the mounting kit.



Untie the shrouds.



There are two shrouds and two shroud rings. Attach one shroud to each shroud ring.



The knot on the shroud should sit inside the upper notch of the shroud ring facing out. Slide the shroud ring onto the cross tube and tighten the thumb screw a couple of turns so that it "just" enters the hole in the cross tube.

Note: The knot should be on the top of the cross tube as shown.

The shrouds should look like this free and uncrossed. Also, make certain that plastic clips on the ends of the shroud retraction bungee are clipped to the shrouds, pulling them forward.



Insert the push rod into the leeboards trailing edge and secure with the split ring.



Slide the leeboard assembly all the way into the cross tube.



Note: If you have trouble inserting the leeboard assembly into the cross tube, check to see if the thumbscrew is protruding into the tube. If this is the case, back out the thumbscrew a little and try again.





Tighten the leeboard control knob.
(Hand tight)



Tighten the shroud ring thumb
screw.

Repeat this process for the leeboard assembly on the other side.

CHECK THESE ITEMS BEFORE PROCEEDING:

1. The split ring for the cross tube is located on the upper surface of the main body tube.
2. One side of the cross tube has a Camlock webbing strap and the other side has the longest webbing strap.
3. The shrouds are not crossed.
4. The knot on the end of the shroud is in the upper notch of the shroud ring facing out.
5. The knot at the end of the shroud should be on the **TOP** of the crosstube.
6. The leeboard control rods are inserted into the leeboards and secured with the split rings.
7. The leeboard assemblies are inserted fully into the crosstube.
8. The leeboard control knob and the shroud ring thumb screw are both tight.



The assembled rig should look like this.

HIGH PERFORMANCE GENOA KIT:

This small but sophisticated accessory sail will add an exciting new dimension to your kayaksailing experience. Not only will it increase the power of your rig by adding more sail area, it will enhance the efficiency of the airflow around the main sail, allowing the rig to sail at even closer angles to the wind without stalling. The headsail is also very useful to the paddler with shoulder issues and for those who just want to keep their paddling effort to a minimum.

We suggest that you read this instruction manual carefully before attempting to use your new sail.



ATTACHING THE JIB TO YOUR KAYAKSAILOR:

This may be done indoors or outdoors. If working indoors, make sure that there is enough ceiling height to raise the rig.

- 1) First, check your rig to make sure that it came to you with a forestay that has a large knot located near the mast head.



The knot is used for attaching the head of the headsail. If your existing forestay does not have the knot in it, you should consider purchasing and installing our inexpensive Technora® retrofit forestay prior to attaching the jib. The retrofit forestay is a little longer with a pre-tied knot in the correct position.

- 2) With the Kayaksailor in the folded position, slide the traveler line under the main body tube and attach the knotted ends to the openings in the lower part of the shroud rings. Attach them in the same way the shrouds are attached, with the knot located on the outside of the shroud ring.



- 3) If you are working outside, point the boat into the wind and raise the sail of your Kayaksailor to its full upright position.



If indoors, make sure the rig will not hit ceiling fans or light fixtures before raising the rig.

- 4) After raising the rig, loop the luff line at the head of the jib to the ball-like knot at the top of your forestay.



- 5) Attach the velcro tabs located on the luff of the jib to the forestay.



- 6) Thread the black Dyneema® luff line extending from the tack of jib through the forestay eyebolt located on the front of the rig.

Run the end of this line up through the knotted loop and pull it back down with mild tension. Secure the end of the line with a couple of half hitches.





The tension of this luff line is important. If the line is too tight, it will act exactly as an overtightened forestay would, by creating downward mast car pressure and preventing the mast car from sliding freely on the track. If the luff line is too loose, the jib's leading edge will have a loose appearance and may be less effective as an airfoil.



7) Next, thread the jib sheets through their respective pulleys on the traveler line. Make sure the sheets run above the black bungee cord that connects the shrouds.



8) Feed the ends of the jib sheets into the jib sheet jam cleats. It is a good idea to tie a figure-eight knot on the ends of the sheets to prevent them from accidentally coming out of the cleats while out on the water.



THE CLEATS:

The jib sheets are cleated in jam style cleats pre-mounted on a machined ABS base plate. The plate is designed to be used with most cockpit style touring boats, but it can be adapted to a variety of other styles as well.

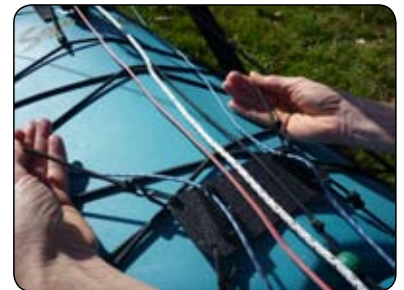


For attaching the cleat plate to a touring boat, position the solid black line around the back of the cockpit coaming.

This line keeps the plate from moving forwards.



The bungee cords located at the front of the plate are clipped to deck rigging in front of the cockpit. The bungee helps pull the plate forward and hold it in position. Ideally each bungee should have equal tension so the plate will be held straight.



Of course the cleats can always be removed from the base plate and attached directly to the boat wherever you want them. For most touring style boats, the cleat fastening screws that are used to attach the cleats to the plate can also be used to attach the cleats directly to the boat. For boats such as sit-on-tops, that may not have access to the underside of the foredeck, more creative methods will be needed for permanently attaching the cleats.



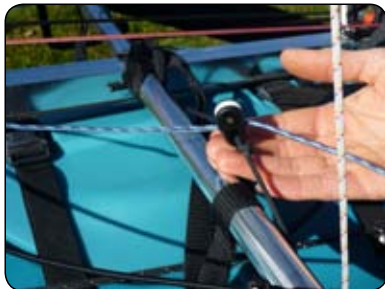
THE JIB SHEET LEADS:

The jib sheets are redirected aft through two Ronstan® micro blocks that are attached to a traveler line. This line runs under the cross tube, and its ends are held fast by the shroud rings. By moving the position of the knots located adjacent to the micro blocks, the blocks can be re-positioned along the traveler line. This gives one the ability to open or close the gap or “slot” in between the mainsail and the jib.

Slot is a term for the air space between two air foils. A slot that is too narrow will restrict or choke the air flow moving between the sails and decrease the efficiency of both sails.

A slot that is too large will reduce the beneficial airflow effect that the jib has on the mainsail, again reducing efficiency. If you plan on sailing off-the-wind or downwind for many hours at a time, consider moving the leads out towards the shrouds. This should help give the jib a faster shape. We have pre-positioned the leads on the traveler to where we like them. They seem to be in a good position for all-around sailing, but please feel free to experiment and reposition them.

The jib leads can also be positioned fore and aft. Since the jib traveler line resides under the cross tube, this allows for the jib lead blocks to be positioned either in front of, or behind the cross tube. If you want to add fullness and power to the body of the jib, just position the blocks in their forward position. If a flatter sail is desired for added control in strong winds, use the aft position.



TRIMMING THE HEADSAIL:

The headsail should be trimmed in a way that is similar to the way the mainsail is trimmed. This means that when the mainsail is let out for heading downwind, the jib should also be let out, and when the main is sheeted in for pointing upwind, the jib should also be pulled in. They work together as a team.

The jib should be cleated on the downwind, or leeward, side of the boat. There are exceptions to this rule. One is when performing the backwinding procedure during a tack described in the next section, and another is when sailing directly downwind “wing-and-wing”. Wing-and-wing is a term describing a downwind sailing maneuver where the mainsail is let out all the way on one side of the boat and the jib is let out all the way on the other side. An advantage to wing-and-wing sheeting is that the jib will have direct access to an unobstructed air flow and will not be in the wind shadow of the main sail.

Finding the proper jib trim can be a little tricky on a kayak because the paddle-sailor is sitting directly behind the mainsail, making it difficult to see the jib. This makes the use of tell-tales ineffective since these yarn indicators can't easily be seen from the cockpit.

There are a couple of basic methods for determining the correct trim angle of the jib. As mentioned earlier, the jib should be trimmed to a similar angle as the mainsail. One can look at the angle of the mainsail's boom and try to match this angle with the angle of an imaginary line running from the bottom of the forestay to the clew of the jib. If these angles are similar, the jib is likely to be in a good position. Another method is the trimming “by ear” approach. The Kayaksalor headsail is made from a high quality rip-stop sail cloth that is urethane coated to stabilize the fibers. This coating gives the sail an especially crisp and crinkly sound when fluttering in the wind. To trim the sail by-ear, one just needs to ease the leeward jib sheet until this fluttering sound is heard, and then pull it back in just until the sound stops. It's very easy and quite effective. One should note however, that if the wind changes direction in relation to the boat, the sail can end up being trimmed too tightly without it making a sound, so it's beneficial to check the sails trim every now and then by periodically re-trimming.

TACKING WITH A HEADSAIL:

When sailing relatively long, light boats like kayaks and catamarans with a mainsail alone, it can sometimes be difficult to come about, or “tack” into the wind. In the middle of the tack, these boats can easily succumb to the slowing effects of wind resistance and choppy water, losing the momentum necessary to carry the vessel around. A novice at the helm can easily find their boat stalled, or stuck “in irons”. A balanced headsail can be a useful tool to power a light craft through the tacking maneuver since your headsail allows the boat to sail more into the wind (at a closer “point of sail” with respect to the wind) and the boat doesn't have as far to turn. Stalled tacks normally aren't a problem in paddle-sailing since paddle strokes can be employed to maintain the boats momentum through the eye of the wind, but the addition and proper use of a headsail will speed up the whole tacking process and make it more enjoyable.

One way to further speed up the tacking procedure is by “backwinding” the headsail. By leaving the jib sheet cleated on the windward side for several seconds after the boat passes through eye of the wind, this now backwinded jib will pull the bow of the boat downwind until it is on a course for the next point of sail.

TIPS:

Be sure to lower your sail **only** while pointing directly into the wind. This should be done when sailing with the main alone, but is especially important to be pointed directly into the wind when the jib is attached. Since the jib is attached to the forestay, and the forestay needs to fall back on top of the mast car when the rig is folded, a sideways pull from the wind resistance of the the jib can prevent the forestay from landing back on top of the car. While this will not prevent the rig from being folded, it will prevent it from deploying again, at least until the forestay is replaced back on top of the car. This can mean a trip back to shore, so make sure your boat is pointed into the wind.

The angle that your leeboards will need to be set in order to achieve rig balance will be slightly different when sailing with the jib. Since the jib's center of effort “CE” is located forward of the mast, and the mainsail's CE is located aft of the mast, the CE for the whole rig is somewhere between. It's located approximately above the cross tube. We have found the rig will be in balance when the leeboards are in the complete down or “vertical” position.

The jib can also be used while the main is reefed. Both sails have a very low CE and can be quite controllable in a strong breeze.

A situation that we have encountered a few times is that when the main is reefed and the halyard loses its tension, the knot in the jib sheet near the clew can get caught in between the mast and the top of the mast car. This only happens when tacking, but it can be frustrating, because it will not allow the jib to be sheeted in completely. A paddle blade can be used to lift the knot from its trapped position.

To prevent this jib sheet snag, you can tie an additional knot in the red halyard line, so when the mainsail is reefed, this knot will sit in the goal post cleat.



TIPS (continued):

The result should be that the halyard will now have enough tension to prevent the jib sheet from finding its way into the mast car and becoming trapped.

While preparing your rig for a sailing session, you can tie a slip-knot with the jib sheets around the rolled jib. A slight tug on the appropriate sheet will untie the knot and allow the sail to unfurl.



CARING FOR AND STORING YOUR JIB:

If you sail in salt water, you might as well spray off the jib at the same time you rinse the aluminum parts. It will help keep your sail looking clean and fresh.

If you like, your jib can be stored rolled on the rig. With the rig in the upright position, roll the sail from the clew to the luff with a slight downward pull, then use the sheets to lightly bind the sail in it's rolled position.



Exposure to sunlight is a major cause of sailcloth degradation, so be sure to cover it along with the main sail if it's going to be left out in the sun for an extended period of time.

If you have any questions, please feel free to contact us via e-mail: info@kayaksailor.com or phone 541.716.6262.

We are always happy to help. Fair winds and happy sailing!

MOUNTING THE RIG FOR WATER TRIALS



In order to determine an acceptable mounting position, the rig should initially be attached to the boat only temporarily. This may be done with mylar packaging tape and the longest, (49", 124cm) webbing strap.

POSITIONING



Lay the folded rig on the deck of the kayak.

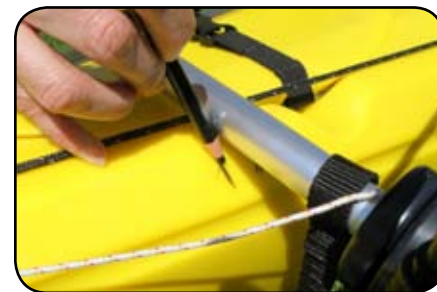


Sit inside your kayak and lean forward as if touching your toes.

Note: It's important to be able to reach the mast head from the cockpit in order to help gather the sail and position it between the goal posts.

The mast head and sail should be within your grasp. Ideal rig placement should be close enough to reach the sail and far enough in front of you to allow for a clean paddling stroke. This should be a good rig position for testing.

With a pencil or wax marker, mark the deck of the kayak under the cross tube near the gunwales.



Pass the webbing strap under the hull and secure with the CamLock buckle located on the other side of the cross tube. Tighten the webbing straps so the main body tube is in the center of the boat. But don't over tighten.

Note: If you over tighten the webbing strap you may bend the cross tube.

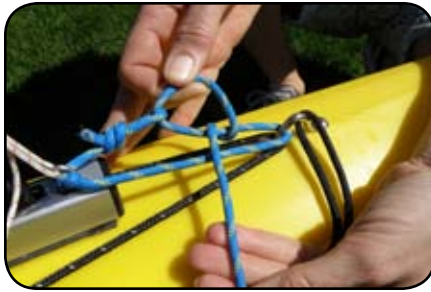


If your boat has a domed deck, be sure to use mylar packaging tape to prevent the rig from shifting during water trials.



The tape should be passed under the hull and secured around both ends of the cross tube.





Secure the front of the rig with the forward tie-down line to any existing deck hardware. If you can't find a good place to tie it, don't worry.



Use mylar packaging tape at the level of the forestay eyebolt around and under the bow.



Place the leeboard control rods on the deck, unwind the 3 sail control lines and lead them into the cockpit.



Check the security of the rig by trying to shift it from side to side. If it moves more than 2" use more packaging tape.

Set the leeboard assemblies to the width of your boat.

The leeboard control knob should be tightened so the leeboards will remain in the raised position.

Tighten the shroud ring thumb screw to lock the leeboard assembly in place.



BECOMING FAMILIAR WITH THE WORKING FEATURES.

THE MAGIC TRACK™ MAST STEP

This unique feature allows the mast and sail to be raised or lowered from the cockpit.



Pulling the mast car aft along the track raises the mast.
A bungee line pulls the mast car forward lowering the mast.

ATTENTION: Keep yourself and others away from the rig while raising and lowering the sail. The sliding mast car and moving spars can cause injury.

THE GOAL POSTS



The goal posts hold the sail in place when the rig is folded.

THE KEY HOLE CLEATS



This easy to use cleat is located on the rear section of the main body tube under the goal posts. It is used to secure two lines, the mast car control line and the halyard. To cleat a line pass it through the hole and drop the knot in the bottom of the slot.

THE MAIN SHEET CLEAT

The main sheet cleat is a single cam cleat that allows the main sheet to be locked in position.

THE LEEBOARD ASSEMBLIES

The main purpose of the leeboards is to reduce the sideways sliding motion of the boat. This allows the boat to sail upwind (at an angle toward the direction the wind is coming from).

The leeboard control knob adjusts the amount of friction applied to the leeboard head as well as locks the leeboard assembly inside the cross tube. The shroud ring thumb screw also locks the leeboard assembly into the cross tube.

Raising and lowering the leeboards is accomplished by pushing and pulling on the fiberglass push rod.



SAIL REEFING

Reefing is the ability to reduce the size of the sail area in overpowering conditions. Ideally, this should be done prior to launching your boat.



Raise the mast

Take the outhaul reefing line and thread it through the end of the boom and secure.



Gather the sail together and tie the reefing lines under the boom.

The sail can be deployed or folded while reefed.



Your reefed sail should look like this.

USING THE MAIN SHEET



Practice cleating and uncleating the main sheet.

To cleat the main sheet, pull in and to the right. This will lock the main sheet under the cam.



To uncleat the main sheet, pull to the left. This will allow the main sheet to move freely through the cleat.

THE DOWNHAUL/BOOM VANG

Another unique feature of the Kayaksailor is the down haul-boom vang line. This single line combines the functions of the down haul and the boom vang. It's purpose is to help create proper sail shape. It comes from the loft pretensioned but can be adjusted if desired.

NOTE: When raising the sail, if the downhaul/boom vang is over tightened, you may have trouble pulling the halyard knot through the keyhole cleat. If it is too loose, the sail will lose some of its shape and efficiency.



THE CAMLOCK BUCKLES

The Camlock buckles enable you to secure the rig to the boat quickly and easily.



RAISING AND LOWERING THE SAIL

RAISING THE SAIL

Raising the sail for the first time should always be done on land. It's important for the boat to be pointed directly into the wind for the sail to go up and down smoothly.

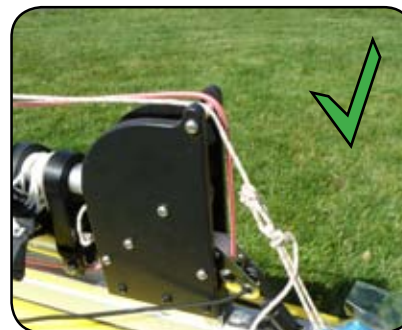
Turn the boat into the wind.



Check to make sure the forestay is resting on the aluminum spacer on the top of the mast car.



It should look like this...



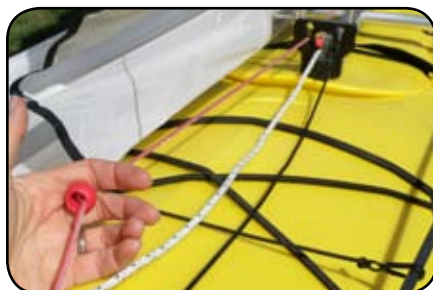
NOTE: The forestay must be resting on the top of the mast car for the sail to deploy.



To raise the mast and head of the sail, pull the black mast car control line towards you until the knot in the line passes through the key hole cleat. Position the knot in the bottom of the slot.



Uncleat and release the black mast car control line in the same way.



To raise the remainder of the sail, pull the red halyard line towards you until the knot goes through the key hole cleat.



Lean forward and position the lowered sail between the goal posts.



Position the knot in the bottom of the slot.

NOTE: If the aft end of the boom hits the cockpit coaming, you may want to position the rig farther forward.

LOWERING THE SAIL

Point the boat directly into the wind.



NOTE: The main sheet and the halyard must always be released before releasing the black mast car control line.

Uncleat the main sheet. (sail control line)
Uncleat and release the red halyard by allowing the knot to pass through the keyhole.

WATER TRIALS



After practicing on land and becoming familiar with the rig, it's time for water trials. On-the-water testing will enable you to evaluate if the rig is in the proper position for the installation of the mounting hardware.

Remember, rig placement should be far enough to the front to allow for a clean paddling stroke but far enough back to reach the sail from the cockpit when the sail is folded. Even if you are an experienced sailor, read the kayak sailing basics section of this manual thoroughly before entering the water. Take your time with the testing, and have fun.

KAYAK SAILING BASICS

CHOOSING AN IDEAL SAILING SITE

The ideal site should have:

- Safe access to the water
- An absence of waves and strong currents
- Minimal boat traffic
- An onshore or sideshore breeze
- If you are unfamiliar with your chosen location, seek advice from boaters who are familiar with local conditions and hazards.

LAUNCHING PROCEDURE

Prior to launching, inspect the rig thoroughly and practice raising and lowering the sail.

ATTENTION: Launch and land your boat with the rig in the folded position.

After launching;

1. Paddle away from shore and point the boat into the wind.

ATTENTION: Raising and lowering the sail must always be done with the boat pointed directly into the wind.

2. Lower the leeboards into the water.
3. Raise the mast and sail.

LANDING PROCEDURE

Prior to landing;

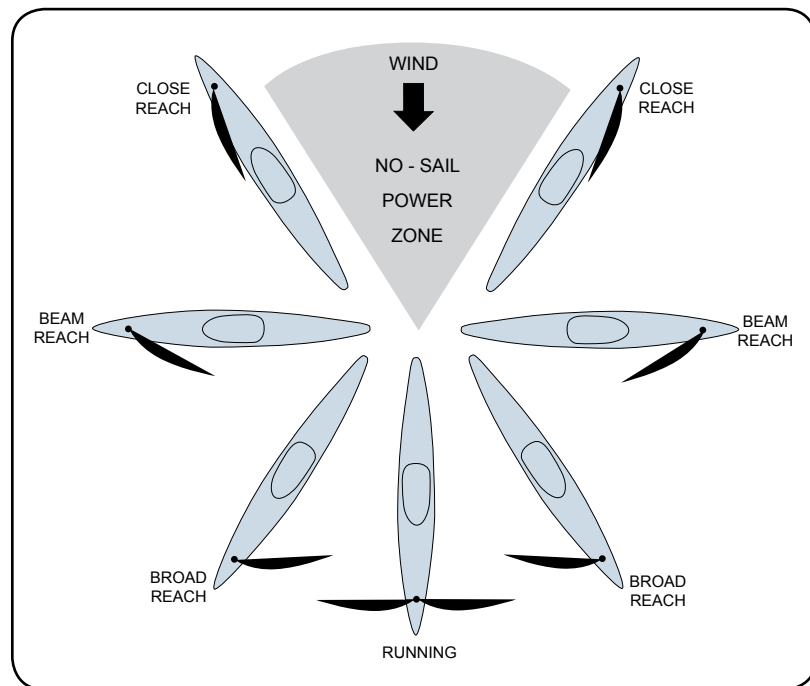
1. Point the boat into the wind.
2. Lower the sail and the mast.
3. Raise the leeboards.
4. Paddle to shore.

HARNESSING THE WIND

In order to harness the wind, it's important to be aware of its direction.

If you are unsure of the direction of the wind, observe your surroundings. Flags, blowing grass, ripples on the water, smoke. These can help you identify the direction of the wind.

The following diagram illustrates various points of sail and their corresponding sail settings.



Notice the no - sail power zone. When the boat is pointing in this direction, sails have little or no power. Traveling through this region can be accomplished with the assistance of paddling.

Choose a direction of travel and point the boat in this direction, then pull in the main sheet until some wind fills the sail. If the sail becomes overpowered, the boat will heel (lean over) excessively. Easing out on the main sheet will spill wind from the sail and help restore control.

ATTENTION: It is important to always have the main sheet within easy reach to make adjustments to the sail trim.

CHANGING DIRECTION

There are two ways of turning the boat around, coming about and jibing.

Coming about or **tacking** is turning the boat into and through the wind until the sail becomes powered on its other side. A series of tacks are used to reach a destination upwind. Because kayaks are so light, they quickly lose much of their forward speed when turned up into the wind. Paddling while tacking will help maintain speed and ensure a smooth transition through the wind.

Jibing is turning the boat away from the wind until the wind crosses the back of the boat causing the sail to move from one side of the boat to the other. A series of jibes can be used to reach a destination downwind. To jibe, turn the boat downwind, and let the main sheet out. As the wind crosses the back of the boat, quickly sheet in the sail and immediately let it out on the other side. Sheet in while jibing will help control the speed of the sail as it crosses over the boat and ensure a smooth transition.

PADDLE SAILING

By paddle sailing upwind, you can point very close to the wind with little effort, sharing the forces needed to get the boat upwind.

Paddling while sailing increases speed, and facilitates tacking and steering.

STEERING

Steering can be accomplished by placing a paddle blade in the water alongside the boat and using it as a rudder or by making sweeping strokes to help alter course. These techniques are useful even if your boat is equipped with a rudder.

CAPSIZE RECOVERY

ATTENTION: If you are unfamiliar with kayaking or re-entering a kayak from the water, seek professional instruction on proper re-entry techniques. Performing a roll to right the boat will not work with the sail up. Always maintain a secure grip on your boat while in the water.

For most people flipping over isn't a common occurrence although it can happen from time to time, especially in very strong gusty winds. In the event of a capsize it is important to know how to bring the boat to an upright position (to "right" the boat.) Depending on the style of your boat, the correct technique can vary but in general it involves this procedure:

1. Exit the boat.
2. Reach across the hull and pull the boat into an upright position.
3. Release the main sheet in order to prevent the sail from powering up.
4. Point the boat into the wind.
5. Enter the boat.

If conditions are difficult to manage, after righting the boat, drop the sail and inspect all lines for proper positioning. The forestay should be resting on top of the mast car and the halyard should not cross over the mast head.

Secure the sail between the goal posts and enter the boat.

INSTALLING THE MOUNTING KIT

Once you have located an acceptable position for the rig, it's time to install the hardware.

TOOLS YOU WILL NEED:

- drill
- 3/16" drill bit
- 3/8" wrench or an adjustable model
- #2 phillips head screwdriver
- pencil or wax marker
- silicone sealant (optional)

NOTE: If the underside of the deck of your boat is inaccessible, you will need the use of a pop rivet tool. Pop rivets are single use fasteners. If you are unfamiliar with the use of a pop rivet tool, seek help. Most boat shops should be able to assist you.

PROCEDURE



Make sure the main body tube is positioned on the center of the deck.



With a pencil or wax marker, mark the deck of your boat under both ends of the cross tube.

Also make marks on the forward end of the main body tube. Mark the deck of the boat on both sides of the forestay eye bolt. Allow for a finger's width between the mainbody tube and the eye straps.



Position the stainless eye straps on the deck, under the cross tube, just inside of the shroud rings. Allow enough distance from the gunwale to accommodate the stainless washer and nut.



With a pencil, mark the location of the holes in the eye straps.

Remove the rig from the boat. Mark the location of the holes in the forward eye straps.

NOTE: If you have access to the inside of your boat, you will likely use the stainless machine screws, washers and nuts to attach the eye straps. If you do not have access, you will need to use the blind pop rivets.



Drill holes for the eye straps. A small amount of silicone sealant can be applied to keep out water. Install the eye straps with the machine screws, washers and lock nuts.





If you do not have access to the inside of your boat, use the pop rivets.

PREPARING THE RIG FOR USE WITH THE MOUNTING KIT

Fold the sail.

Remove the leeboards from the sail rig.

Remove the shroud rings from the cross tube.

Remove the long webbing strap.

Slide one Camlock webbing strap onto each side of the cross tube.



Slide the small loop webbing strap on each side of the cross tube.

Replace the shroud rings.

Replace the leeboard assemblies



SECURING THE SAIL RIG ON THE BOAT

Place the Kayaksailor on the boat.



Cross the Camlock webbing straps over the main body tube.



The webbing straps should be under all of the sail control lines.

NOTE: Trapping the lines will prevent the rig from performing properly.



Thread the webbing straps through the stainless eye straps from the outside to the inside and secure with the Camlock buckles.





Tighten the webbing straps so the main body tube is in the center of the boat. But don't overtighten

NOTE: If you overtighten the webbing straps you may bend the cross tube. Just make them snug.



Thread the forward tie down lines through the eye straps and secure using half hitches.

REMOVAL FOR STORAGE

- Rinse with fresh water and allow to dry completely.
- Spray the lower mast and mast track with silicone lubricant.
- Wrap the main sheet, halyard and mastcar control lines around the sail behind the goalposts.
- Place the sail cover over the sail.
- Remove the webbing from the Camlock buckles.
- Untie the forward tie down line.
- Loosen the leeboard control knobs and shroud ring thumb screws.

- Slide out the leeboard assemblies and position them along the main body tube.



- Guide the rig into the carry bag.



TRANSPORTING YOUR RIG

The carry bag holds the rig and is a convenient way to transport it locally. For extended travel or if space is a concern, it can be further disassembled by removing the cross tube and leeboard assemblies and placing it in the carry bag. For long distance and/or air travel be sure to package the rig with an appropriate box and cushioning material.

NOTE: Always remove the rig from your boat prior to car topping or trailering. The sail cover and folded sail are not designed to travel at highway speeds.



MAINTENANCE AND CARE

NOTES ON CARING FOR YOUR KAYAKSAILOR:

Pulleys, Mast Car and Mast Track- Make sure that all the pulleys, the mast car, and the mast track are in good working order before each session. Rinse them with fresh water after each session to keep them free of sand and debris.

Sun- Ultraviolet radiation is the enemy of all fabrics. Your sail will last a long time even in extreme sun, but care should be taken not to subject it to unnecessary exposure. Use the sail cover between sessions.

Heat- Never leave your rig inside a hot car. The combination of a sail stored while still wet, and or heat can cause colors to transfer. Only pack your sail away after it is completely dry. Never store your sail rig in hot temperatures (over 40°C or 104°F). Doing so may damage your leeboards and other components.

Sand- Sand is abrasive. It can prevent the pulleys, mast car, mast track and sail rings from functioning properly. Take care to remove all sand from the rig before and after each use.

Shore Break- Never launch or land through breaking waves. Even a small shore break can be brutal on your rig. Not only does shore break carry sand into every crevice, but moving water can tear the sail, bend the spars, and basically destroy the rig.

Lubrication- Keeping the lower mast and mast track well lubricated is essential. We recommend the use of a dry PTFE lubricant such as **SAILKOTE™** by **McLube** as needed. **SAILKOTE™** is available at many performance sailing, marine and boating supply stores. **Avoid spraying the leeboard assembly and your mainsheet!** Since this product is solvent based, it's best to spray it on the sail rig outside or in a well ventilated area. In a pinch, lip balm, vegetable oil, or sunscreen can be used as a lubricant, but will need to be thoroughly removed with soap and water after your session.

Line checks- Check all of your lines, including shrouds and fore stay before and after each use. Check lines for fraying. Replace any lines that have any signs of excessive wear.

Storing- After rinsing and drying your rig, place it into the carry bag.

GLOSSARY OF TERMS

Battens - Thin fiberglass rods placed in a pocket on the sail to help hold its form.

Beam wind - A wind that blows across the boat from side to side.

Boom - The spar to which the foot of the sail is attached.

Boom Vang - A line holding the boom down when sailing off the wind.

Bow - Forward part of the boat.

Capsize - To tip over.

Cleat - A fitting used to secure a line under strain.

Clevis Pin - A type of fastener that consists of a, head, shank and hole. A split ring goes through the hole and secures the clevis pin in place.

Cross tube - An aluminum tube that passes through the main body tube.

Downhaul - A line attached to the tack of a sail used to trim the fullness of a sail.

Forestay - A line used to support the mast from a position forward of the mast.

Forestay eye bolt - A point used to secure the fore stay to the main body tube.

Genoa - A simple jib or foresail whose clew reaches behind the mast overlapping the mainsail.

Goalposts - Two vertical rods used to hold the sail in place when the rig is folded.

Gooseneck - A device which secures the boom to the mast

Halyard - A line used to haul sails up and down the mast.

Halyard pulley - A device located on the front of the mast car used to redirect the halyard.

Head - The top of a sail.

Jib - A triangular sail attached to the forestay of a sailboat.

Jibe - To change tack on a down wind course.

Keyhole cleat - A simple cleat used to secure the mast car control line and the halyard.

Knot - 1) A nautical unit of speed: 6076 feet or one nautical mile per hour. 2) A compact intersection of rope.

Leeboard - A shaped blade located on the side of the rig to give the boat lateral resistance when it is sailing to windward.

Leeboard ring - Device used to apply friction and support to the leeboard head.

Leeboard control knob - A knob used to adjust the amount of friction applied to the leeboard head.

Line - A rope used on a boat.

Main Body tube - A square aluminum tube that is the main body of the Kayaksailor.

Mast - A vertical spar used to support the sail.

Masthead - A device located at the top of the main mast.

Mast ring - Device used to hold the top mast to the main mast.

Mast track - An aluminum track that allows the mast car to travel on the main body tube.

Mast Car - A device that holds the mast and travels along the mast track .

Mast car bungee - Pulls the mast car forward.

Main sheet - the line for controlling sail trim.

Main sheet cleat - The cleat used to secure the main sheet.

Off shore - Away from shore.

Off the wind - Sailing downwind or before the wind.

Out haul - The line that pulls in the sail away from the mast and tightens the foot of the sail along the boom.

Over powered - The sensation that the sail is too large for the wind speed.

Point - To head close to the wind.

Push rod - Fiberglass rod used to raise and lower the leeboard.

Reach - Sailing with a beam wind.

Reefing - To reduce the area of a sail.

Reefing points - Area on the sail where the sail ties are located.

Reefing out haul - Out haul line used when reefing.

Rudder - A fin or blade attached to the boat's stern used for steering.

Sail - Fabric fitted to the spars used to convert the force of the wind into the forward motion of the boat.

Sail ties - lengths of line used to secure a reefed sail to a boom.

Shrouds (stays) - Vertical lines that hold the mast upright.

Shroud Retraction Bungee - A thin bungee cord that tensions the shrouds when the rig is folded.

Spar - A pole used to support sails and rigging.

Tack - 1) The forward lower corner of a sail. 2) Any course on which the wind comes from either side of the boat. 3) To change course by passing into the wind.

Tie down straps - Used to secure the Kayaksailor to the boat.

Topmast - A spar used to extend the height of the main mast.

Topmast / down haul bungee - Pulls the topmast down when the halyard is released.

Trim - 1) To adjust the sails. 2) The position of the sails relative to the wind.

Wedge lock - Device used to hold the leeboard assembly inside the cross tube.

Windward - Toward the wind.

Windows - Clear panels that allow the sailor to see through the sail.

WARRANTY POLICY:

Kuvia LLC warrants this product to be free from major defects in material or workmanship to the original purchaser for a period of ninety (90) days from the date of purchase. This warranty is subject to the following limitations:

The warranty is valid only when this product is used for normal recreational activities, and does not cover products used in rental or teaching operations. Kuvia LLC will make the final warranty determination, which may require photos and/or inspection of the equipment which clearly show the defect(s). If necessary, this information must be sent to Kuvia postage prepaid. Product can be returned only if a return authorization number (RAN) is given in advance by Kuvia LLC. The RAN number must be clearly labeled on the outside of the package, or it will be refused. If a product is deemed to be defective by Kuvia LLC, the warranty covers the repair or replacement of the defective product only. Kuvia LLC will not be responsible for any costs, losses, or damages incurred as a result of loss of use of this product. This warranty does not cover damage caused by misuse, abuse, neglect or normal wear and tear including, but not limited to, sail punctures, rigging modifications, damage due to excessive sun exposure, or damage caused by improper handling, transport and storage, damage caused by use in waves or shore break, or anything other than defects in material and workmanship. This warranty is void if any unauthorized repair, change or modification has been made to any part of the equipment. The warranty for any repaired or replacement equipment is good from the date of the original purchase only. The original purchase receipt must accompany all warranty claims. The name of the retailer and date of purchase must be clear and legible. There are no warranties, expressed or implied, which extend beyond the warranty specified herein.



SATISFACTION GUARANTEED:

We stand behind our product. If it does not meet your needs, return it to us, unused with its original packaging within 30 days for exchange or refund. If your Kayaksailor should break while in use within 90 days, please refer to the warranty policy. We are here to help you. If you have any questions, our friendly, knowledgeable staff will be happy to assist you.

For more information, contact us by visiting www.Kayaksailor.com